

Existing EV Rate Structures

CPUC ZEV Rate Design Forum

7/7/2018

This document contains the existing EV TOU rates available to many California customers. It is for discussion purposes only.

PG&E Existing EV Rates (Residential)

EV-A

Residential

Whole-House: Must be eligible for E-1 and have a registered BEV or PHEV

On-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	\$	\$
	End	0.47334	0.32987
Part-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	\$	\$
	End	0.25994	0.20417
Part-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	\$	\$
	End	0.25994	0.20417
Off-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	\$	\$
	End	0.12753	0.13046

Demand Charge: N/A

Customer Charge: N/A (Minimum bill amount: \$10/month)

Note: Weekend & holiday peak hours are 3 p.m. to 7 p.m., with off-peak all other hours.

EV-B

Residential

Separately metered - EV charging only

On-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	\$	\$
	End	0.46665	0.32274
Part-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	\$	\$
	End	0.25659	0.20061
Part-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	\$	\$
	End	0.25659	0.20061
Off-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	\$	\$
	End	0.12705	0.12995

Demand Charge: N/A

Customer Charge: \$1.50/month

Note: Weekend & holiday peak hours are 3 p.m. to 7 p.m., with off-peak all other hours.

SCE Existing EV Rates

TOU-EV-3-A Rate Schedule

Commercial

EV-Only

On-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	Noon	0.36
	End	6:00PM	
Mid-Peak			
	8:00am-noon	0.17	0.14
	6:00pm-11:00pm		
Off-Peak			
	All other hours	0.09	0.10

Customer Charge (cents/day) 0.836

TOU-EV-3-B Rate Schedule

Commercial up to 20kW/month

EV-Only

On-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	Noon	0.33
	End	6:00PM	
Mid-Peak			
	8:00am-noon	0.14	0.11
	6:00pm-11:00pm		
Off-Peak			
	All other hours	0.06	0.07

Customer Charge (cents/day) 0.836

Demand Charge (\$/kW/month) \$7.23

SCE Existing EV Rates (continued)

TOU-EV-4 Rate Schedule

Commercial 20kW-500kW/month

EV-Only

On-Peak	Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	Noon	0.29
	End	6:00PM	
Mid-Peak			
	8:00am-noon	0.12	0.09
	6:00pm-11:00pm		
Off-Peak			
	All other hours	0.05	0.06
Demand Charge (\$/kW/month)		\$13.20	
Customer Charge (\$/month)		\$198.79	

TOU-EV-1 Rate Schedule

Residential

EV-Only

On-Peak	Hour	(\$/kWh)
	Start	Noon
	End	9:00PM
Off-Peak		
	All other hours	0.13
Monthly Meter Charge (\$/month)		\$2.76

SDG&E's Existing EV Rates

EV-TOU						
Residential						
EV Only						
Rates effective as of 1/1/18 - AL 3167-E						
On-Peak	Hours - Weekday Summer	Hours - Weekday March/April	Hours - Weekend/Holiday	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)	
	Start	4:00pm	4:00pm	4:00pm	0.53781	0.24799
	End	9:00pm	9:00pm			
Peak						
	Start	N/A	N/A	N/A	N/A	
	End	N/A	N/A			
Off-Peak						
	Start	6:00am; 9:00pm*	6:00am; 2:00m; 9:00pm*	2:00pm; 9:00pm*	0.2861	0.23893
	End	4:00pm; midnight*	10:00am; 4:00pm; midnight*	4:00pm; midnight*		
Super Off-Peak						
	Start	Midnight	Midnight; 10:00am*	Midnight	0.22801	0.22887
	End	6:00am	6:00am; 2:00pm*	2:00pm		

* SDG&E's TOU Periods includes multiple instances of the same TOU Period within a given day. As such, the start time of each such period is listed in the "Start" row, and the end time of each such period is listed in the "End" row.

EV-TOU-2						
Residential						
Whole-House						
Rates effective as of 1/1/18 - AL 3167-E						
On-Peak	Hours - Weekday Summer	Hours - Weekday March/April	Hours - Weekend/Holiday	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)	
	Start	4:00pm	4:00pm	4:00pm	0.53781	0.24799
	End	9:00pm	9:00pm			
Peak						
	Start	N/A	N/A	N/A	N/A	
	End	N/A	N/A			
Off-Peak						
	Start	6:00am; 9:00pm*	6:00am; 2:00m; 9:00pm*	2:00pm; 9:00pm*	0.2861	0.23893
	End	4:00pm; midnight	10:00am; 4:00pm; midnight*	4:00pm; midnight*		
Super Off-Peak						
	Start	Midnight	Midnight; 10:00am*	Midnight	0.22801	0.22887
	End	6:00am	6:00am; 2:00pm*	2:00pm		

* SDG&E's TOU Periods includes multiple instances of the same TOU Period within a given day. As such, the start time of each such period is listed in the "Start" row, and the end time of each such period is listed in the "End"

CPUC ZEV Rate Design Forum June 7-8, 2018

EV-TOU-5					
Residential					
Whole-House					
On-Peak	Hours - Weekday Summer	Hours - Weekday March/April	Hours - Weekend/Holiday	Summer Prices (\$/kWh) ¹	Winter Prices (\$/kWh) ¹
Start	4:00pm	4:00pm	4:00pm	0.53019	0.24037
End	9:00pm	9:00pm	9:00pm		
Peak					
Start	N/A	N/A	N/A	N/A	N/A
End	N/A	N/A	N/A		
Off-Peak					
Start	6:00am; 9:00pm*	6:00am; 2:00m; 9:00pm*	2:00pm; 9:00pm*	0.27848	0.23131
End	4:00pm; midnight*	10:00am; 4:00pm; midnight*	4:00pm; midnight*		
Super Off-Peak					
Start	Midnight	Midnight; 10:00am*	Midnight	0.09317	0.09403
End	6:00am	6:00am; 2:00pm*	2:00pm		
Customer Charge: \$16.00					
* SDG&E's TOU Periods includes multiple instances of the same TOU Period within a given day. As such, the start time of each such period is listed in the "Start" row, and the end time of each such period is listed in the "End" row.					
¹ SDG&E's anticipates implementing its Schedule EV-TOU-5 on 7/1/18. SDG&E has filed its proposed rates in AL 3226-E.					

VGI		
Residential Drivers at Multi-Unit Dwellings or Workplace		
EV-Only		
Base Rate		
Rates effective as of 1/1/18 - AL 3167-E		
Transmission		0.01871
Public Purpose Programs		0.01043
Nuclear Decommissioning		(0.00005)
Competition Transition Charge		0.00150
Local Generation Charge		0.00730
Reliability Services		0.00004
DWR Bond Charge		0.00549
Subtotal Base Rate		0.04342
Commodity Rate		
Commodity Base Rate		0.06385
CAISO day-ahead hourly price		updated daily, day ahead
VGI day-ahead C-CPP Hourly Adder		0.52695
CAISO day-of hourly adjustments for surplus energy		updated daily, same day
Distribution Rate		
Distribution Base Rate		0.03480
VGI day-ahead D-CPP Hourly Adder		0.50479
Total Base Rate		
Subtotal Base Rate		0.04342
Commodity Base Rate		0.06385
Distribution Base Rate		0.03480
Total Base Rate		0.14207

SMUD Residential TOU + EV Credit

Residential TOU + EV Credit

Residential

Whole House TOU

On-Peak		Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
Mon-Fri Only	Start	5:00pm	\$0.2835	\$0.1338
	End	8:00pm		
Mid-Peak				
Summer Mon-Fri Only	Noon-5:00pm		\$0.1611	
	8:00pm- Midnight			
Off-Peak				
All other hours			\$0.1166	\$0.0969

EV Customer Credit

(\$/kWh Midnight-6:00AM)

(\$0.0150)

(\$0.0150)

Liberty Utilities Existing EV Rates (Residential)

TOU D-1 Time of Use Electric Vehicle Service

Residential Customers TOU Meters

Whole-House

On-Peak		Winter Hour	Summer Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	5:01PM	10:01AM	0.13872	0.14215
	End	10:00PM	10:00PM		
Mid-Peak					
	Start	7:01AM			0.13839
	End	5:00PM			
Off-Peak					
	Start	10:01PM	10:01PM	0.08146	0.08146
	End	7:00AM	10:00AM		

Customer Charge (\$/month)

\$13.43

TOU D-1 Time of Use CARE Electric Vehicle Service

Residential CARE Customers TOU Meters

Whole-House

On-Peak		Winter Hour	Summer Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	5:01PM	10:01AM	0.12068	0.1238
	End	10:00PM	10:00PM		
Mid-Peak					
	Start	7:01AM			0.10911
	End	5:00PM			
Off-Peak					
	Start	10:01PM	10:01PM	0.06357	0.06357
	End	7:00AM	10:00AM		

Customer Charge (\$/kW/month)

\$10.74

Liberty Utilities Existing EV Rates (Commercial)

TOU A-1 Time of Use Electric Vehicle Service
 Small General Service Customers TOU Meters
 Whole-Facility

On-Peak		Winter Hour	Summer Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	5:01PM	10:01AM	0.14468	0.15911
	End	10:00PM	10:00PM		
Mid-Peak					
	Start	7:01AM			0.14468
	End	5:00PM			
Off-Peak					
	Start	10:01PM	10:01PM	0.09359	0.09359
	End	7:00AM	10:00AM		

Customer Charge (\$/kW/month) \$20.21

A-3 Time of Use Electric Vehicle Service - Buses
 Large General Service Customers TOU Meters - Buses/Stations
 Bus Fleet Charging Stations

On-Peak		Winter Hour	Summer Hour	Summer Prices (\$/kWh)	Winter Prices (\$/kWh)
	Start	5:01PM	10:01AM	0.07306	0.06907
	End	10:00PM	10:00PM		
Mid-Peak					
	Start	7:01AM			0.06813
	End	5:00PM			
Off-Peak					
	Start	10:01PM	10:01PM	0.05523	0.05445
	End	7:00AM	10:00AM		

Demand Charge (\$/kW/month)

On-Peak	\$13.12	\$7.95
Mid-Peak		\$2.99

Customer Charge (\$/month) \$455.59

SCE Recently-Approved Commercial EV-TOU Rates

TOU-EV-8

Large Power with Monthly Max Demand between 21 - 500 kW

EV-Only

TOU Period		2019-2023 <u>All Energy Rate</u> Year 5	2024 Year 6	2025 Year 7	2026 Year 8	2027 Year 9	2028 Year 10	2029+ <u>Full FRD Rate</u> Year 11
Summer On - \$/kWh	4-9pm weekdays	\$0.41816	\$0.41131	\$0.40447	\$0.39762	\$0.39077	\$0.38393	\$0.25882
Summer Mid - \$/kWh	4-9pm weekends	\$0.27718	\$0.27034	\$0.26349	\$0.25664	\$0.24980	\$0.24295	\$0.20051
Summer Off - \$/kWh	All except 4-9pm all days	\$0.12550	\$0.11866	\$0.11181	\$0.10496	\$0.09812	\$0.09127	\$0.10135
Winter Mid - \$/kWh	4-9pm all days	\$0.27801	\$0.27116	\$0.26432	\$0.25747	\$0.25062	\$0.24378	\$0.20134
Winter Off - \$/kWh	9pm-8am all days	\$0.13206	\$0.12522	\$0.11837	\$0.11152	\$0.10467	\$0.09783	\$0.11078
Winter Super-Off- \$/kWh	8am-4pm all days	\$0.08133	\$0.07448	\$0.06764	\$0.06079	\$0.05394	\$0.04710	\$0.05837
Customer Charge (\$/Month)		\$106.75	\$106.75	\$106.75	\$106.75	\$106.75	\$106.75	\$106.75
FRD (\$/kW)		\$0.00	\$1.99	\$3.99	\$5.98	\$7.97	\$9.97	\$11.96
% of Final FRD		0	16.67%	33.33%	50.00%	66.67%	83.33%	100.00%
FRD % Increase By Year			16.67%	16.67%	16.67%	16.67%	16.67%	16.67%

Illustrative rates as proposed in SCE's Electric Transportation (TE) Application (A.17-01-021) for implementation in early 2019
Rate levels reflect Jan. 1, 2017 revenue requirement and current 2015 GRC Phase 2 revenue allocations

NOTES:

Yr1 – Yr5: Energy only; No Demand Charges

Yr6 – Yr10: Phase-in Demand Charges

Yr11+: Return to Energy and Demand Charges (The distribution grid component after the 10-yr period will reflect only 60%, rather than 100%, of distribution costs, with the balance of distribution costs recovered through energy charges.

